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BEFORE THE ARIZONA CORPORATION COMMISSION

BOB STUMP  
Chairman  
GARY PIERCE  
Commissioner  
BRENDA BURNS  
Commissioner  
BOB BURNS  
Commissioner  
SUSAN BITTER SMITH  
Commissioner

Arizona Corporation Commission  
**DOCKETED**  
JAN 31 2013

DOCKETED BY	NR
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IN THE MATTER OF THE APPLICATION  
OF MOHAVE ELECTRIC COOPERATIVE,  
INC. FOR APPROVAL OF ITS 2013  
RENEWABLE ENERGY STANDARD AND  
TARIFF PLAN AND TARIFF

DOCKET NO. E-01750A-12-0289  
DECISION NO. 73633  
ORDER

Open Meeting  
January 23, 2013  
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. Mohave Electric Cooperative ("MEC") is engaged in providing electric service within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission.

Background

2. On June 29, 2012, MEC filed an application for approval of its 2013 Renewable Energy Standard and Tariff ("REST") Plan.

3. MEC is a rural electric distribution cooperative headquartered in Bullhead City, Arizona, providing electric service to approximately 32,500 members in Mohave, Coconino, and Yavapai counties. MEC owns and operates 112 miles of 69 kV sub-transmission lines and 1,405 miles of distribution lines. MEC employs approximately 76 employees and provides service to 26 meters per mile of line in its service territory.

4. MEC is a wholesale power customer of the Arizona Electric Power Cooperative, Inc. ("AEPSCO") and purchases additional wholesale resources from other market providers. In ...

1 2011 MEC delivered 658 gigawatt-hours in retail sales to its members. This represents a 0.5%  
2 increase from 2010.

3 5. Commission Decision No. 72802 (February 2, 2012) approved MEC's REST Plan  
4 for 2012. The 2013 REST Plan retains the significant features of its 2012 REST Plan with an  
5 increase in funding for Community-Based Projects. MEC seeks no changes in its REST surcharge.

6 **MEC's REST Plan**

7 6. The MEC REST Plan would include eight components intended to achieve annual  
8 renewable energy goals. The goal for 2013 is 1.5% of retail energy sales, adjusted for projected  
9 savings achieved through MEC's Energy Efficiency Plan. The eight components are:

- 10 - Voluntary Renewable Energy Program
- 11 - Member Self-Directed Renewable Energy Program
- 12 - SunWatts Residential and Commercial Incentive Program
- 13 - Clean Renewable Energy Bonds ("CREBS")
- 14 - SunWatts Large-Scale Program (In conjunction with AEPCO)
- 15 - Analysis of Geothermal Resources Within and Outside of MEC's Service Territory
- 16 - Distributed Generation Solar Installation Within MEC's Service Territory
- 17 - Community-based Projects

18 **Voluntary Renewable Energy Program**

19 7. MEC would continue to offer a voluntary program whereby participating customers  
20 can purchase "Green Energy" 50 kWh blocks at a cost of \$2.00 each. MEC is not proposing any  
21 change to its Voluntary Renewable Energy Program Tariff for 2013; a copy of which is included in  
22 the REST Tariffs section of the filed REST Plan application.

23 **Member Self-Directed Renewable Energy Program**

24 8. An MEC customer who pays more than \$25,000 annually in renewable energy  
25 surcharge funds may apply to MEC to receive funds to install distributed renewable energy  
26 resources. An eligible customer seeking to participate in this program would submit a written  
27 application to MEC describing the renewable energy resource that it proposes to install and the  
28 projected cost of the project. All renewable energy credits derived from the project would be

applied to satisfy MEC's annual renewable energy requirement. MEC is not proposing any change to its Renewable Energy Customer Self-Directed Tariff for 2013; a copy of which is included in the REST Tariffs section of this REST Plan.

#### **SunWatts Residential and Commercial Incentive Program**

9. Table 1 summarizes the incentives proposed, and they are further explained below:

**Table 1**  
**Mohave Electric Cooperative**  
**2013 R.E.S.T. Plan Incentives**

System	Incentive	Cap or Limits
Residential & Commercial Small PV or Wind <50 kW. Greater than 50 kW – case-by-case incentive.	\$0.35 / Watt	40% of System Cost up to \$25,000
Solar Water Heating if replacing traditional electric. Rebate during first year of operation only.	\$0.75 per kWh saved	Customer Contribution 15% of system cost
Daylighting	\$0.20 per kWh	Rebate during first year of operation only.
Biomass / Biogas	\$0.06 per kWh	Electric
Biomass / Biogas	\$0.035 per kWh	CHP Electric
Biomass / Biogas	\$0.018 per kWh	CHP Thermal
Biomass / Biogas	\$0.015 per kWh	Thermal
Biomass / Biogas	\$0.032 per kWh	Cooling

10. The SunWatts Incentive Program pays incentives to customers to install photovoltaic ("PV"), solar water heating, and small wind turbine systems. Incentives would be made on a first-come, first-served basis until funding is exhausted. Once a customer submits a reservation form, no further reservation form will be accepted from the customer until the pending installation has been fully completed and the rebate provided or the reservation is voluntarily withdrawn.

11. For residential and small commercial PV and wind systems of all system sizes up to 50 kW, MEC will pay \$0.35 per watt of installed nameplate capacity, up to 40% of the total cost of the system. The dollar cap for PV and wind systems installed at a single location is \$25,000 for both residential and commercial systems. To qualify for incentives, the combined generation

1 capacity at the location is limited to a maximum of 125% of the total connected load at the location  
2 and is limited to one installation per service entrance for residential and commercial PV and wind  
3 turbine systems. This incentive program is unchanged from the approved 2012 REST Plan, and  
4 includes an approved modification, effective June 5, 2012, with Commission Decision 73228,  
5 which reduced the incentives.

6 12. PV and small wind projects larger than 50 kW are not covered by REST incentives  
7 and will be dealt with on a case-by-case basis through negotiated contracts.

8 13. For residential solar water heating systems, MEC will continue to provide a rebate  
9 of \$0.75 per kWh of energy saved during the system's first year of operation. Solar systems must  
10 be OG-300 certified solar systems to be eligible for the SunWatts rebate. A list of OG-300  
11 certified solar systems is available at the Solar Rating and Certification Corporation's website  
12 [[www.solar-rating.org](http://www.solar-rating.org)]. MEC will only rebate those systems which replace a traditional electric  
13 water heater. In addition, the customer contribution to the cost of the solar water heater project  
14 must be a minimum of 15% of the total project cost after accounting for and applying all federal  
15 and state incentives. Solar swimming pool heating systems are not eligible for the SunWatts  
16 rebate.

17 14. MEC will continue to include Biomass, Biogas, Daylighting and Solar Space  
18 Cooling in this program. The incentive for Daylighting would be \$0.20 per kWh saved during the  
19 first year. Production Based Incentives ("PBI") would be paid for Renewable Energy Credits over  
20 a ten-year period. The Biomass/Biogas incentives per kWh would be: \$0.06 for electric generation,  
21 \$0.035 for Biomass/Biogas CHP electric, \$0.018 for Biomass/Biogas CHP-Thermal, \$0.015 for  
22 Biomass/Biogas thermal and \$0.032 for Biomass/Biogas cooling. The Solar Cooling PBI would  
23 be for ten years in the amount of \$0.129 per measured kWh.

24 **Clean Renewable Energy Bonds PV for Schools**

25 15. All eligible schools in MEC's service territory have received PV systems under the  
26 approved 2010 and 2011 REST Plans. The Commission had previously authorized MEC to  
27 provide these systems at no cost to the schools by utilizing up to \$1,000,000 of internal MEC  
28 funds repayable with REST funds over ten years at the CREB rate. See Decision No. 72092.

**SunWatts Large-Scale Program (in conjunction with AEPCO)**

16. The SunWatts Large-Scale Program is administered by AEPCO on behalf of its member cooperatives. MEC will continue to participate with AEPCO and its member cooperatives on projects that are determined to be beneficial and help in meeting the REST Plan requirements.

**Geothermal Resources**

*Within the MEC Service Territory*

17. MEC, in partnership with Navopache Electric Cooperative, Inc., ("NEC"), retained Black & Veatch, Consulting Engineers, ("B&V"), to investigate the feasibility of developing geothermal energy resources within each cooperative's service territory. B&V partnered with GeothermEx, Inc. of Richmond, California to identify and characterize known thermal waters, heat flow, and geology.

18. GeothermEx evaluated and described geothermal targets within or near the two service territories in terms of depth, host formations, and, where possible, order-of-magnitude estimates of generation potential. For the sites identified, preliminary estimates of land status, access, proximity to transmission infrastructure and water availability were considered. A program of exploration and confirmation drilling, including costs and approximate timelines, has been developed by GeothermEx.

19. The final report from GeothermEx and B&V concluded that the potential for a 5 MW geothermal generation resource is feasible in both service territories, with the NEC location having the highest probability for success. NEC has initiated a grant application to the DOE to fund exploratory drilling. MEC will monitor the progress of NEC and is prepared to partner with NEC in the development of the geothermal resource once exploratory drilling indicates that the project will proceed to commercial development. However, MEC has not proposed any REST funds for this program in its 2013 REST budget.

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1 *Outside MEC's Service Territory*

2 20. MEC continues its Willcox Greenhouse Geothermal Project agreement with  
3 Sulphur Springs Valley Electric Cooperative and AEPCO. The project has provided 2,192,050  
4 RECs to MEC.

5 **Distributed Generation Solar Installation Within MEC's Service Territory**

6 21. MEC continues to explore development of a renewable energy generation project  
7 up to 5 MW within its service territory. MEC is considering a developer-based project, as well as  
8 an MEC renewable energy project within its own load area. MEC currently has three engineering  
9 agreements in place with renewable energy project developers.

10 22. Funds allocated for this project can be utilized on any qualified renewable project  
11 within MEC's Service Territory up to 5 MW, excluding any renewable project for which MEC has  
12 another specific program under this REST Plan.

13 23. Decision No. 71407 ordered that such a project would count toward meeting the  
14 REST rule Renewable Energy Resources requirement but that no determination would be made at  
15 that time regarding it meeting the Distributed Renewable Energy Resources requirement. A final  
16 determination would be based on the project details when available.

17 **Community-Based Programs**

18 24. MEC proposes to expand its Community-Based Programs to include the items  
19 below and proposes a 2013 budget of \$100,000 for these items. In 2010, 2011, and 2012 MEC  
20 successfully facilitated federal American Recovery and Reinvestment Act ("ARRA") funding and  
21 private donations to enhance REST Plan approved community projects. MEC would continue to  
22 pursue government and private donations for future projects under this program.

23 *Habitat for Humanity/Community Services Program*

24 25. MEC has partnered with Habitat for Humanity to offer alternative energy options to  
25 low income housing in MEC's service area. MEC's REST Plan's budget allows for one project  
26 per year that would not exceed \$25,000. In years where Habitat for Humanity does not designate  
27 an eligible low income housing project under this program by July 1 of the year, MEC will select  
28 another community-based nonprofit organization to receive the \$25,000 renewable energy project.

1 *PV for Fire Stations Program*

2 26. MEC will select an eligible Fire Station in the service territory for one PV project  
3 per year not to exceed \$50,000, or two Fire Stations for a PV project not to exceed \$25,000 each.

4 *Non-profit project*

5 27. MEC will select one additional non-profit facility to receive a PV system not to  
6 exceed \$25,000.

7 **Educational Grant Program**

8 28. One school per year, in MEC's service area, would be offered an educational grant  
9 of no more than \$5,000 for the development of renewable energy generation educational curricula  
10 for the classroom.

11 **Administration and Advertising**

12 29. MEC advertises and promotes its REST programs in a variety of mediums  
13 including, but not limited to, bill inserts, monthly newsletters, television, radio and community  
14 events. MEC will not use more than 15% of total surcharge funds for administration and  
15 advertising expenses. At the end of each program year, unused funds will be carried over to fund  
16 activities and programs in the following year.

17 30. MEC maintains information on its customer-driven programs on its website at  
18 [www.mohaveelectric.com](http://www.mohaveelectric.com). In coordination with the Grand Canyon State Electric Cooperative  
19 Association, MEC continues to support and participate in the Arizona Goes Solar website  
20 mandated by the Commission, the administration of which is spearheaded by Arizona Public  
21 Service Company.

22 **Progress and Goals**

23 31. MEC has 246 residential and small commercial PV arrays installed within its  
24 service territory. The PV arrays range in size from 2 kW to 46 kW and deliver an estimated 3,748  
25 MWh annually while reducing MEC's load requirements by about 1,711 kW.

26 32. MEC also has 25 school and government PV installations, sized from 8 kW to 50  
27 kW. These PV arrays deliver an estimated 982 MWh annually and reduce MEC's load  
28

1 requirements by about 455 kW. MEC has 25 small wind generators installed within its service  
2 territory, all rated at 2 kW for a load reduction of 55 kW and annual delivery of about 96.5 MWh.

3 33. MEC has partnered with several government and non-profit organizations on the  
4 following community-based projects:

- 5 - Bullhead City Habitat for Humanity installed a 3.5 kW PV array on the area's first  
6 Habitat for Humanity house completed in late 2009 at a cost of \$25,000.
- 7 - MEC partnered with the Boys and Girls Club in 2010 to install a renewable energy  
8 system at a cost of \$54,000. A private foundation donated \$25,000, REST Program  
9 funding was \$25,000, and \$4,000 was donated by the solar contractor,. The system  
10 capability is 12.375 kW.
- 11 - Another Habitat for Humanity home was constructed in 2012, and MEC committed  
12 \$25,000 in REST funds for a 4.3 kW PV system on the home.
- 13 - MEC partnered with Bullhead City to install a 50 kW PV system located at the City  
14 Hall. The system produces approximately 88,296 kWh annually. MEC advanced the  
15 \$394,000 cost of the project which was funded by a combination of federal grant monies  
16 and REST funds. Approximately \$53,000 will be repaid from energy savings to the  
17 REST fund by Bullhead City, with no interest, over the 25-year life of the project.
- 18 - Under the "PV for Schools" program for 2009, 2010 and 2011, all eligible schools in  
19 MEC's service territory received PV systems through the approved REST Plans. Each  
20 school's system averaged 16 kW. MEC was approved to provide these systems at no  
21 cost to the schools by utilizing up to \$1,000,000 of internal MEC funds. Details are  
22 described under the CREBs discussion. Schools received \$50,000 from the REST  
23 Program and an additional \$10,000 of ARRA funds secured by MEC.
- 24 - Mohave Community College, Bullhead City Campus received \$150,000 for a 40 kW PV  
25 system; construction was completed in 2011. REST funds provided \$50,000, private  
26 foundation funds \$25,000, and a \$75,000 match in ARRA funds, all facilitated by MEC.
- 27 - MEC is actively working in partnership with NEC and consultants to evaluate potential  
28 geothermal development in both service territories.



- 1 - MEC continues its Willcox Greenhouse Geothermal Project agreement with Sulphur  
2 Springs Valley Electric Cooperative and AEPCO. The project has provided  
3 approximately 2,192,050 RECs to MEC.

#### 4 **Budget**

5 34. MEC has proposed the budget shown below in Table 2. The proposal for 2013 of  
6 approximately \$1.6 million would allow MEC to expand its communication of renewable options  
7 with its members, offer rebates to a larger number of members, increase spending limits on schools  
8 and other programs, and perform other activities spelled out here and in its filed Implementation  
9 Plan.

10 **Table 2**  
11 **Mohave Electric Cooperative**  
12 **2013 R.E.S.T. Plan**  
13 **Five-Year Budget Forecast**

	2013	2014	2015	2016	2017
<b><u>Revenues</u></b>					
RES Funding	1,587,573	1,603,448	1,619,483	1,635,678	1,652,034
<b><u>Expenditures</u></b>					
Residential and Commercial Incentives	567,212	576,638	592,673	608,868	625,224
5 MW Distributed Generation-Solar	548,884	548,884	548,884	548,884	548,884
PV For Schools Loan Repayment	103,189	109,638	109,638	109,638	109,638
GO SOLAR Website	1,744	1,744	1,744	1,744	1,744
Solar Water Heating	18,000	18,000	18,000	18,000	18,000
GeoThermal Resources-Willcox Greenhouse	29,544	29,544	29,544	29,544	29,544
Administration & Advertising	219,000	244,000	244,000	244,000	244,000
Habit for Humanity	25,000	25,000	25,000	25,000	25,000
Fire Department Complex	50,000	25,000	25,000	25,000	25,000
Other Programs	25,000	25,000	25,000	25,000	25,000
Total Expenditures	1,587,573	1,603,448	1,619,483	1,635,678	1,652,034

#### 24 **Funding and Surcharge**

25 35. Staff has reviewed MEC's Renewable Energy Standard Tariff surcharge rates  
26 proposed to fund its annual budget for 2013 which are unchanged from current rates. Proposed  
27 rates are shown in Table 3. Expected revenue from customer classes is shown in Table 4.

**Table 3**  
**Mohave Electric Cooperative**  
**Proposed RES Tariff Charges**

Customer Class	Energy Charge	Monthly Cap
Residential	0.0095006	\$3.10
Governmental and Agricultural	0.0009420	\$15.00
Governmental and Agricultural $\geq$ 3 MW	0.0009420	\$49.00
Irrigation	0.0053714	\$49.00
Small Commercial	0.0053714	\$49.00
Large Power	0.0053714	\$49.00
Non-Residential $\geq$ 3 MW	0.0053714	\$147.00
Highway	0.0095006	\$3.10

**Table 4**  
**Mohave Electric Cooperative**  
**2013 REST Funding from Surcharge**

	Revenue	Average Charge	Percent of Customers at Cap
Residential	\$1,123,015	\$1.51	75.64%
Governmental	\$13,624	\$1.94	9.43%
Irrigation	\$8,983	\$19.82	66.96%
Small Commercial	\$394,136	\$7.51	6.62%
Large Power	\$46,703	\$23.50	93.21%
Highway	\$1,110	\$0.09	0.50%
Total	\$1,587,573		

#### **REST Plan and Report Formats**

Under Decision No. 72737 dated January 18, 2012, the Commission ordered the formation of a REST Format Working Group ("Working Group") to prepare format guidelines for future REST Implementation Plans and REST Compliance Reports. The Working Group docketed a report with its recommendations on August 31, 2012, and is pending Staff approval. The effective date for usage of the templates is April 1, 2013, for the 2012 Compliance Reports and July 1, 2013, for the 2014 REST Implementation Plans. Staff believes that Mohave's future REST Implementation Plans and Compliance Reports should conform to the format guidelines as approved by Staff.

1 **Recommendations**

2       36. Staff has recommended that MEC's proposed 2013 Renewable Energy Standard  
3 and Tariff Plan be approved as discussed herein.

4       37. Staff has recommended that MEC's Renewable Energy Standard Tariff rates and  
5 caps remain at present levels as proposed and as shown in Table 2 herein.

6       38. Staff has recommended that MEC's incentive amounts remain at present levels.

7       39. Staff has recommended that MEC use Staff-approved standardized template  
8 formats for its next REST implementation plans and REST compliance reports.

9       40. Staff has also recommended that MEC file in Docket Control a Renewable Energy  
10 Standard Tariff consistent with the Decision in this case within 15 days of the effective date of the  
11 Decision.

12 **CONCLUSIONS OF LAW**

13       1. Mohave Electric Cooperative, Inc. is an Arizona public service corporation within  
14 the meaning of Article XV, Section 2 of the Arizona Constitution.

15       2. The Commission has jurisdiction over Mohave Electric Cooperative, Inc. and over  
16 the subject matter of the application.

17       3. The Commission, having reviewed the application and Staff's Memorandum dated  
18 January 9, 2013, concludes that it is in the public interest to approve Mohave Electric Cooperative's  
19 2013 REST Implementation Plan as discussed herein.

20 **ORDER**

21 IT IS THEREFORE ORDERED that Mohave Electric Cooperative Inc.'s proposed 2013  
22 REST implementation plan be and hereby is approved as discussed herein.

23 IT IS FURTHER ORDERED that Mohave Electric Cooperative Inc.'s Renewable Energy  
24 Standard Tariff rates and caps remain at present levels as proposed and as shown in Table 3 herein.

25 IT IS FURTHER ORDERED that Mohave Electric Cooperative Inc.'s incentive amounts  
26 remain at present levels as shown in Table 1.

27 ...

28 ...

1 IT IS FURTHER ORDERED that Mohave Electric Cooperative shall use Staff-approved  
2 standardized template formats for its next REST implementation plans and REST compliance  
3 reports.

4 IT IS FURTHER ORDERED that Mohave Electric Cooperative file in Docket Control a  
5 Renewable Energy Standard Tariff consistent with the Decision in this case within 15 days of the  
6 effective date of the Decision.

7 IT IS FURTHER ORDERED that this Order shall become effective immediately.

8  
9 **BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

10  
11   
12 CHAIRMAN

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12 COMMISSIONER

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15 COMMISSIONER

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15 COMMISSIONER

15   
COMMISSIONER

16 IN WITNESS WHEREOF, I, JODI JERICH, Executive  
17 Director of the Arizona Corporation Commission, have  
18 hereunto, set my hand and caused the official seal of this  
19 Commission to be affixed at the Capitol, in the City of Phoenix,  
20 this 31<sup>st</sup> day of January, 2013.

21   
22 JODI JERICH  
23 EXECUTIVE DIRECTOR

24 DISSENT: \_\_\_\_\_

25 DISSENT: \_\_\_\_\_

26 SMO:JJP:sms\WVC  
27  
28

1 SERVICE LIST FOR: Mohave Electric Cooperative, Inc.  
2 DOCKET NO. E-01750A-12-0289

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